

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of: Steven R. Galipeau, et al.                      Docket: 101944-300  
Serial No.: N/A                                                                      Art Unit: 2121  
Filed: Herewith                                                                      Examiner: Rodriguez, P.  
Assignee: Primex Aerospace Company  
Title: Aircraft Data Management System

**Certificate of Mailing**

Date of Deposit

I hereby certify under 37 CFR 1.8(a) that this correspondence (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service as first class mail with sufficient postage on the date indicated above and is addressed to Box Patent Assistant Commissioner for Patents, Washington, DC 20231.

Signed: \_\_\_\_\_

Name: Paul A. Levy

**PRELIMINARY AMENDMENT FILED WITH APPLICATION**

Box Patent Application  
Assistant Commissioner for Patents  
Washington, DC 20231

Dear Sir:

In the matter of the above-identified application for Letters Patent filed herewith, preliminary to examination, please enter and consider the following Amendment and Remarks:

**AMENDMENT****In the Specification:**

1. At page 1, line 6, please **DELETE** one paragraph and **REPLACE** with:  
-- This Patent Application is a divisional of U.S. Patent Application No. 09/411,063 that was filed on October 4, 1999 and relates to and claims priority to U.S. Provisional Patent Application Serial No. 60/103,823 that was filed on October 9, 1998 and U.S. Patent application No. 09/411,063. The disclosure of Provisional Patent

Application Serial No. 60/103,823, Patent Application No. 09/411,063, as well as the disclosure of commonly owned U.S. Patent No. 5,754,445 entitled "Load Distribution and Management System" by Jouper, et al., is incorporated herein by reference in its entirety.--

2. At page 6, line 24, please **DELETE** one paragraph and **REPLACE** with:

-- Figures 10a-10o illustrate ARINC standards, as known from the prior art. --

3. At page 13, line 12, please **DELETE** one paragraph and **REPLACE** with:

-- The AC power conducted through seat-to-seat cable 20 is utilized in critical aircraft functions such as navigation and control. A certain minimum threshold of power must remain available for these critical functions. A control circuit 104 is in communication with a master control unit (illustrated in Figure 9) in the head end that determines if the satisfaction of another passenger's personal electric power needs causes the aircraft power to drop below the minimum threshold power requirement. The master control unit informs the in-seat power supply 94 of the in-seat power availability via the ISPS enable signal 108 and the ISPS system available signal 106. These signals 108,106 are communicated to the ISPS via a data network interface module 114. ISPS enable signal 108 is used to disable the system in situations where the entire system must be kept off. For example, the ISPS may not be enabled if the aircraft is at an elevation of less than 10,000 feet or if the flight crew manually disables the system. ISPS system available signal 106 is used to control the power management feature of the system. If, for example, the minimum threshold power demand has been met, this signal will be asserted to prevent any more outlets from providing power until additional power becomes available, typically by other passengers terminating their personal electric power demand. --

4. At page 15, line 22, please **DELETE** one paragraph and **REPLACE** with:

-- An audio module 120 receives multiple audio tracks through IEEE-1394 data bus 22, or equivalent, and power is obtained from auxiliary power line 56. The audio tracks are provided to connector 102, that is typically a Universal Serial Bus. A passenger operated digital passenger control unit (DPCU) 124 may be utilized to select the desired audio track and individual passenger headsets utilized to listen to the selected audio track. --

5. At page 20, line 20, please **DELETE** one paragraph and **REPLACE** with:  
-- Auxiliary power module 160 converts aircraft power 162, 115 volts AC, 400 Hz, to dc power required for auxiliary power line 56. --
6. At page 24, line 22, please **DELETE** one paragraph and **REPLACE** with:  
-- ARINC standards may be obtained from: ARINC Inc., 2551 Riva Rd., Annapolis, MD 21401-7465. An exemplary listing of ARINC standards is shown in Figures 10a-10o --.
7. At page 26, line 7, please **DELETE** one paragraph and **REPLACE** with:  
-- Utilizing point to point protocol, the personal computer 226 communicates with network interface card 228. The network interface card is a component of the data network interface module located in an integrated seatbox. The network interface card 228 facilitates by communication with the personal computer by simulating a modem interface. An exemplary network interface card operating as an RTOS is VxWORKs. --

Specification Paragraphs Marked Up to Show All the Changes from the Previous Version

1. This Patent Application is a divisional of U.S. Patent Application No. 09/411,063 that was filed on October 4, 1999 and relates to and claims priority to U.S. Provisional Patent Application Serial No. 60/103,823 that was filed on October 9, 1998 and U.S. Patent application No. 09/411,063. The disclosure of Provisional Patent Application Serial No. 60/103,823, Patent Application No. 09/411,063, as well as the disclosure of commonly owned U.S. Patent No. 5,754,445 entitled "Load Distribution and Management System" by Jouper, et al., is incorporated herein by reference in its entirety.
2. Figures 10a-10o [I] illustrate ARINC standards, as known from the prior art.
3. The AC power conducted through seat-to-seat cable 20 is utilized in critical aircraft functions such as navigation and control. A certain minimum threshold of power must remain available for these critical functions. A control circuit 104 is in communication with a master control unit (illustrated in Figure 9) in the head end that determines if the satisfaction of another passenger's personal electric power needs causes the aircraft power to drop below the minimum threshold power requirement. The master control unit informs the in-seat power supply 94 of the in-seat power availability via the ISPS enable signal 108 and the ISPS system available signal 106. These signals 108,106 are communicated to the ISPS via a data network interface module 114. ISPS enable signal 108 is used to disable the system in situations where the entire system must be kept off. For example, the ISPS may not be enabled if the aircraft is at an elevation of less than 10,000 feet or if the flight crew manually disables the system. ISPS system available [enable] signal 106 is used to control the power management feature of the system. If, for example, the minimum threshold power demand has been met, this signal will be asserted to prevent any more outlets from providing power until additional power becomes available, typically by other passengers terminating their personal electric power demand.
4. An audio module 120 receives multiple audio tracks through IEEE-1394 data bus 22, or equivalent, and power is obtained from auxiliary power line 56. The audio tracks are provided to connector 102['], that is typically a Universal Serial Bus. A passenger

operated digital passenger control unit (DPCU) 124 may be utilized to select the desired audio track and individual passenger headsets utilized to listen to the selected audio track.

5. Auxiliary power module 160 converts aircraft power 162, 115 volts AC, 400 Hz, to dc power required for auxiliary power line 56. [Any suitable power converter may be utilized. One particularly suitable power converter is a buck-boost converter as disclosed in provisional patent application 60/134810 by Ozkaynak that is incorporated herein by reference in its entirety.]

6. [ARINC Standards may be reviewed on the World Wide Web at [www.arinc.com](http://www.arinc.com), see Figures 10a-10l.]

7. Utilizing point to point protocol, the personal computer 226 communicates with network interface card 228. The network interface card is a component of the data network interface module located in an integrated seatbox. The network interface card 228 [226] facilitates by communication with the personal computer by simulating a modem interface. An exemplary network interface card operating as an RTOS is VxWORKs.

In the Claims:

Please **CANCEL** claims 1 - 24 without prejudice or disclaimer.

Please **AMEND** the claims as follows:

Claim 28. (amended) The passenger outlet of claim 25 wherein said seventh, eighth and ninth plugs are coupled to a universal serial bus.

Claims Marked Up to Show Changes from the Previous Version

Claim 28. (amended) The passenger outlet of claim 25 [28] wherein said seventh, eighth and ninth plugs are coupled to a universal serial bus.

In the Drawing(s):

Submitted herewith are a copy of Figures 1 - 12 with proposed changes to Figures 2, 3, 6, and 12 shown in red ink. Approval of the changes by the Examiner is requested.

REMARKS

In the present Application, claims 1 - 29 were pending at issue. By this Amendment, claim 28 has been amended, claims 1 - 24 have been canceled, and no claims have been added. Accordingly, claims 25 - 29 are presented for examination. No new matter has been added. By this Amendment, claims 25 - 29 are believed to be in condition for allowance.

The claims in the application enable *simultaneous* communication at high and low speeds. IEEE STD1073.4.1 (1994) does not teach or suggest a cable that can communicate simultaneously at both high and low speeds. Referring to the IEEE STD Par. 10.1 Overview - it states, "It is the domain . . . to provide a point-to-point data transmission medium . . . ." Such disclosure suggests to one skilled in the art that the prior art cable provides only one pair of data transfer wires and precludes simultaneous communications at both high and low speeds. Note also Par. 10.5.1 which states, "Number of conductors - The cable shall have six conductors: two data signal conductors . . . ." That is, there is only one twisted pair for data communication. This allows for a data (+) and a data (-), as shown in Fig. 18 and associated description in par. 10.5.4. Thus there are insufficient data conductors for simultaneous high speed and low speed data communications.



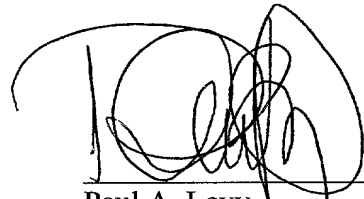
Further, this cable is specifically referred to as a communication cable for medical devices. There is no suggestion in the reference that it is adaptable for use in a computer data transfer.

Applicant submits that the application is now in condition for allowance. Therefore, the Examiner is respectfully requested to take such proper actions so that a patent will issue herefrom as soon as possible.

If the Examiner has any questions or believes that a discussion with Applicant's attorney would expedite prosecution, the Examiner is invited and encouraged to contact the undersigned at the telephone number below.

Please apply any credits or charge any deficiencies to our Deposit Account No. 23-1665.

Respectfully submitted,  
Steven R. Galipeau, et al.

  
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